Bachelor thesis – Kateřina Faltýnková - Ammmonium transport in yeast

Ammonium and ammonia are an essential nutrient for every yeast cells, not only in metabolism, for example in amino acid synthesis, but also as signalling molecules that serve for communication between colonies or for the regulation of pseudohyphal growth.

Transport of ammonia and ammonium ions requires active transport, which is provided by MEP permeases inside the cell likely by exporters ATO proteins out of the cell. In this work there are described families of genes MEP and ATO with main focus on their importance for uptake and export of ammonium ions by yeast and also the regulation of these two gene families in the yeast Saccharomyces cerevisiae, Candida albicans, Cryptococcus neoformans a Yarrowia lipolytica.